- *Alternative 1:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the maximum value of any individual of any species in the lake** will not exceed the BC egg-ovary guideline of 11.0 mg Se/kg.
- *Alternative 2:* the model-derived water-column criteria will provide a level of protection ensuring that **the *population mean for any species in the lake*** will not exceed the BC egg-ovary guideline of 11.0 mg Se/kg***+1SD***.
- *Alternative 3:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the maximum value of any individual of any species in the lake** will not exceed the USEPA egg-ovary criterion of 15.1 mg Se/kg.
- *Alternative 4:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the *population mean of any species in the lake*** does not exceeds the USEPA egg-ovary criterion of 15.1 mg Se/kg***+1SD***.
- *Alternative 5:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the population mean value for any species in the lake** will not exceed the BC whole-body and muscle tissue guidelines of 4.0 mg Se/Kg**+1SD**
- *Alternative 6:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the maximum value of any individual white sturgeon in the Kootenai River downstream of Libby Dam** will not exceed the Linville (2006) EC_{10} of 15.6 mg Se/Kg
- ~~*Alternative 7:* the model-derived water-column criteria will provide a level of protection expected to ensure that **the mean value for any bird species using the lake** will not exceed the BC egg guideline of 6.0 mg Se/Kg**+1SD**~~

NOTES to these edits & additions (questions for discussion in **bold**):

Alt #1: The BC egg-ovary guideline is not applied as an individual maximum value.

Alt #2: This is more consistent with the level of protection offered by the BC egg-ovary guideline.

Alt #3: Is using the EPA national criterion as an individual maximum consistent with how to characterize its level of protection? Recent application/adaptation in Idaho uses an average.

Alt #4: Proposing a population mean for this alternative as well. This is consistent with Idaho's proposed Egg-Ovary criteria in which an average or composite sample of at least five individuals of the same species are used to assess compliance with the criteria.

Alt #5: Proposed an alternative which limits muscle/whole-body tissue so we can consider a criterion that protects to this level, and which meets the Health Canada screening values for High fish intake (7.3 ug/g dry weight).

Alt #6: We assume this reflects the USFWS requirements that any individual of an ESA-listed spp is not affected beyond a proposed threshold. The EC10 for white sturgeon (ESA-listed spp) from the study used in the EPA selenium criteria (2016) is proposed as the threshold in this alternative. **Are there any other ESA-listed species that should be considered? The modellers may need us to delineate a downstream location in the Kootenai River where this alternative 'ends'?**

Alt #7: Struck this option because we don't have the data needed to explore a bird-specific alternative via ecosystem function modelling. Left on the list to track that it was considered.

A note on the 'mean' --- An expression of variability (+1SD) is proposed to protect against extremely high values in individual fish. This assumes that the model works with variability as well as a population metric.